

Application No. 10/616,453
Response dated May 19, 2005
Reply to Office Action of April 22, 2005

Amendments to the Claims:

To bring the previously filed Amendment into compliance with C.F.R. §1.21, please make the amendment/changes to the listing of claims as follows:

The listing of claims was deficient in two respects. First, the "canceled" status of claims 9-88 was not shown. Second, the "new" status of claim 106 was not shown. Applicant has addressed these points in the Replacement Claims Listing, which starts on the following page.

LISTING OF CLAIMS:

Replacement Claims Listing

1-88. (Canceled)

89. (Original) A probe for delivering a fluid material to an object, the probe comprising:

a tip with a capillary;

a microstructured pump having an inlet to receive the fluid material and an outlet in fluid communication with the capillary, the pump pumping the fluid material into the capillary so that the fluid material is ejected by the capillary and delivered to the object in response to a control signal received by the pump.

90. (Original) A probe as recited in claim 89 further comprising:

a base in which the pump is formed; and

a support platform connected to the base and on which the tip is located, the support structure having a duct that connects the capillary of the tip and the outlet of the pump.

91. (Currently amended) A mask repair tool comprising:

an SPM probe comprising a tip with a capillary;

a pump having an inlet to receive [[the]] fluid material and an outlet in fluid communication with the capillary, the pump pumping the fluid material into the capillary so that the fluid material is ejected by the capillary and delivered to the mask in response to a control signal received by the pump.

92. (Previously presented) A mask repair tool as recited in claim 91 further comprising:

a base in which the pump is formed; and

a support platform connected to the base and on which the tip is located, the support structure having a duct that connects the capillary of the tip and the outlet of the pump.

93. (Currently amended) A mask repair tool as recited in claim 91 further comprising a controller configured to:

receive modification data representing a required modification to be made to the mask's material; and

in response to the modification data, ~~generating~~ generate the control signal.

94. (Previously presented) A mask repair tool as recited in claim 91 wherein the fluid material is a liquid.

95. (Previously presented) A method of performing repairs on a mask, the method comprising:

receiving modification data representing a required addition to be made to the mask's material; and

in response to the modification data, adding fluid material to the mask with an SPM probe.

96. (Previously presented) A method as recited in claim 95 further comprising generating the modification data by making SPM measurements of the mask.

97. (Previously presented) A method as recited in claim 96 wherein the SPM measurements are generated with the same SPM probe as the SPM probe used to add fluid material to the mask.

98. (Previously presented) A method as recited in claim 96 wherein the SPM measurements are generated with a different SPM probe than the SPM probe used to add fluid material to the mask.

99. (Previously presented) A method as recited in claim 95 wherein the fluid material is a liquid.

100. (Previously presented) A method as recited in claim 95 wherein the fluid material is introduced to the surface of the mask through an orifice in a tip of the SPM probe.

101. (Previously presented) A method as recited in claim 95 further comprising using the mask, so repaired, in a lithographic fabrication process.

102. (Previously presented) A method of performing repairs on a mask, the method comprising:

receiving modification data representing a required modification to be made to the mask's material; and

in response to the modification data, directing an ion beam to the mask with an SPM probe configured as an ion beam tool.

103. (Previously presented) A method as recited in claim 102 further comprising generating the modification data by making SPM measurements of the mask.

104. (New) A method as recited in claim 102 wherein the ion beam is used to chemically modify the mask's material.

105. (New) A method of performing repairs on a mask, the method comprising:
receiving modification data representing a required modification to be made to the mask's material; and

in response to the modification data, directing an electron beam to the mask with an SPM probe configured as an electron beam tool.

106. (New) A method as recited in claim wherein 105 wherein the electron beam is used to chemically modify the mask's material.